

# ORION

CREW EXPLORATION VEHICLE

WEEKLY ACCOMPLISHMENTS



12.10.10



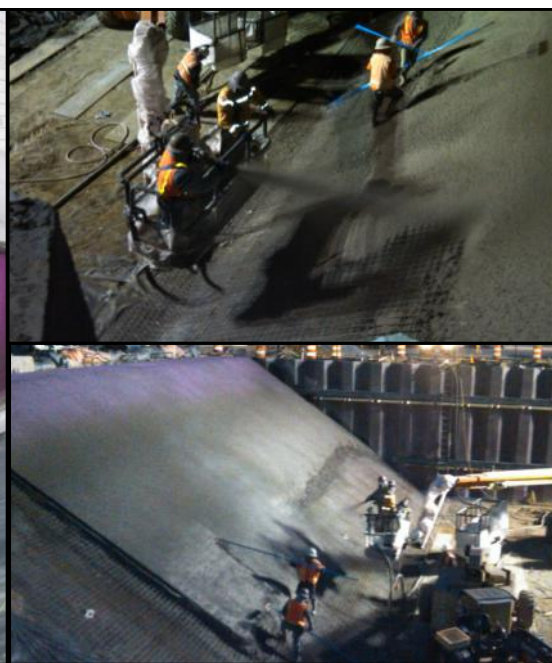
**The NASA Orion Crew Exploration Vehicle Parachute Assembly System team successfully completed the third of three modified porosity parachute airdrop tests (shown above) at the Army Yuma Proving Grounds test range in Yuma, Arizona.** The objective of the airdrop test was to evaluate the effect of increasing the main parachute geometric porosity in a three parachute cluster configuration, which may provide increased parachute stability. The porosity in each of the main parachutes was increased by removing a set of panels in the canopies being tested (removed panels can be seen above right.) This was the ninth test of the gen 2 development tests. The data collected will be used to modify the parachutes for more testing to begin in spring, 2011.



**The Orion Ground Test Article Heatshield Carrier Structure (shown left) is rotated for structural acceptance testing at Lockheed Martin Space Systems in Denver, Colorado.** The heatshield is 16.5 ft in diameter and is the largest heatshield ever fabricated. It utilizes cutting-edge High Temperature Composites.



**The first hardware for Orion Flight Test–1 arrived at the Michoud Assembly Facility in New Orleans, Louisiana.** In all, three forged barrel sections arrived, where they will be trimmed down to form three separate barrels - two for testing and the third for the Orion Flight Test –1. Using the forged barrel technology will significantly cut down on the number of total pressure vessel welds by eliminating 12 of the 33 welds, resulting in a faster, more affordable overall crew module production.



**Construction continues on the Hydro Impact Basin at the Langley Research Center in Hampton, Virginia.** The team continued the fabrication of the concrete walls using the shotcrete process, recently completing the North and South walls of the basin. The team will now turn their attention to preparing the West wall, transitional corners and the base floor for shotcrete placement.

